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(71)Applicant : TOSHIBA CORP
(72)Inventor : TAN TORONRON
KIHATA MASANORI
FUKAO YOICHI
NISHIMURA TAKANOBU
MORIOKA TSUTOMU

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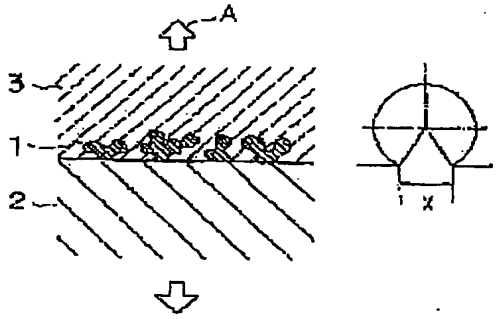
## (54) CLAD METAL MATERIAL, PRODUCTION METHOD AND CONTAINER FOR ELECTROMAGNETIC COOKING

(57)Abstract:
PURPOSE: To provide the clad metal material, which is sufficiently/closely adhered with each other different kinds of metal materials having different deforming resistance, etc., improving joining strength, further, to provide the container for electromagnetic cooking, which is improved for thermal efficiency and reliability.
CONSTITUTION: In the clad metal material, in which two kinds of metal materials of a magnetic metal 2 and high heat conductivity metal material 3 is laminated, a porous intermediate layer 1, which is laminated/stuck on one of metal material, is provided between two kinds of metal materials, it is the clad metal material that a part of the other metal material 3 is inpregnated in the porous intermediate layer 1. Or, it is the clad metal material that constitutional gradient layer is provide as an intermediate layer between a magnetic metal material 2 and high heat conductivity metal material 3. A container for electromagnetic cooking is constituted of a clad metal material at least for the bottom part of container.

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[0023] It is important that the porous intermediate layer of the present invention be in a porous condition. Specifically, a composition material of the intermediate layer desirably has a volume ratio of about 5 to 65% (a porous ratio of about 35 to 95 %). When the volume ratio is less than 5%, it is difficult to obtain a sufficient strength (bonding strength) between the intermediate layer and the metal material which is laminated and adhered thereto. On the other hand, when the volume ratio is more than 65%, impregnated amount of the other metal material is decreased, and an enlarging effect of connecting area and a wedge effect cannot be obtained sufficiently. The volume ratio is desirably 20 to 60 %, and is more desirably 25 to 55%. The volume ratio (porous ratio) of the composition material of the intermediate layer may be inclined, that is, the volume ratio may be decreased from the metal material, on which the porous intermediate layer is formed, to the other metal material, on which the porous intermediate layer is formed. The other metal material may be included in accordance with the included volume ratio. In this structure, a stress relaxation can be performed.